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Office of the Secretary
Federal Communications Commission
Washington, DC 20554

Dear Secretary,

Please find attached an original plus nine copies for filing the comments of Cable Plus in CC Docket No. 94-102 and RM-8143, in the matter of revision of the Commission's rules to ensure compatibility with enhanced 9-1-1 emergency calling systems.

Respectfully submitted,

Gary O'Malley /grs

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Federal Communications Commission
Notice of Proposed Rulemaking

In the Matter of

Revision of the Commission's Rules to ensure compatibility with enhanced 9-1-1 emergency calling systems

CC Docket No. 94-102

RM-8143

January 9, 1995

Comments of Cable Plus

Current situation

Cable Plus is a Residential Multi-Tenant Service (RMTS) [also known as Shared Tenant Services (STS)] provider, offering telephone and cable services to residents in apartment and condominium complexes in several states. Currently, a link between our private telephone switches and the local enhanced 9-1-1 system is available via the local exchange carrier (LEC) in only a handful of areas, and not all of these private switch 9-1-1 services are alike in terms of software, methods and procedures and costs. In addition, we do not have control over when the data we send the LEC is actually being added to the database. We also must deploy costly interfaces in each of our systems to ensure proper signaling to the LEC network.

In other areas, where there is no private switch 9-1-1 service available from the LEC, we are on our own to work individually with public safety agencies, or not provide any 9-1-1 data. Unlike many LECs, we are not reimbursed for our costs associated with providing 9-1-1 service.

The FCC's proposal

We agree with the Commission's proposal that PBXs and private switches should be manufactured to be compatible with enhanced 9-1-1 emergency calling systems. We also agree that 9-1-1 database maintenance, with the inclusion of private switch telephone station location information is a critical and essential element of enhanced 9-1-1 service. But such equipment and services must utilize today's modern technologies and open architectures at both the PSAP and all serving switches, both LEC and private. In addition, the incompatibility issue goes far beyond the design of the private switch.

In order to protect the viability of having a single, nationwide number with immediate access to public safety response services, the Commission's proposal should go farther. In these changing times, where the use of wired and wireless services is escalating, and the definition of a dial-tone provider is being molded by new regulatory and telecommunications laws, it is highly

apparent that the current closed 9-1-1 system architecture between the LEC and the Public Safety Answering Point (PSAP) is no longer adequate.

System design holes

9-1-1 was first designed in the 1960s by AT&T. It was designed by "the" phone company in pre-divestiture days, when competition in wired local telephone service did not exist and was not even anticipated. Consequently, associated 9-1-1 equipment at PSAPs, selective routing networks and 9-1-1 databases were built to suit locally regulated LECs and local emergency response agencies, utilizing the technology of the era.

In 35 years, the methodology used has hardly changed. With modern, open systems technologies, there are many ways to accomplish the task of moving information between a switch and the PSAP. Options, such as ISDN, must be examined and implemented that take advantage of these open technologies and architectural structure.

A bigger picture

There are more holes in the 9-1-1 system architecture than incompatibility with private switches and cellular systems. For instance, competition in the local loop is just around the corner. Local phone service in the next couple of years will be provided by more than just the regulated LEC; a cable company, a traditional long-distance company or other telecommunications firm will be allowed to provide dial tone. These new players also will not be part of the LEC-maintained 9-1-1 database system. In addition, there are other database maintenance problems, including those caused by the deregulation of inside wire and aggregation of trunk lines for pay phones, which lead to inaccurate addressing and call back numbers.

These are just some of the inadequacies of the current enhanced 9-1-1 system, besides the PBX and private switch incompatibility issue. All create the same end problem - inaccurate call back numbers, or location information, or both, which could cause numerous problems for call takers and emergency response personnel, not to mention the caller. All of these issues are outside the LEC's control--and business--which gives less credence to LECs continuing to charter the course for the solutions. The FCC needs to look at all these issues within the big picture of moving enhanced 9-1-1 systems into the 21st century, and not try to figure out how to "patch" each 9-1-1 problem individually into existing, outdated systems.

Leadership and standards

The Commission needs to establish nationwide standards for all dial-tone and telecommunication providers for providing 9-1-1 access, with the 9-1-1

Call Taker Feature Priority proposed by PCIA, APCO, NENA and NASNA in their Emergency Access Position Paper.[1]

Other standards should include:

- The 9-1-1 system architecture, methods and procedures should follow a nationwide standard.

- Open system architecture must be utilized throughout all systems.

- 9-1-1 tandem switches and LEC end office switches should have standard features available that allow for private switch signaling (both digital or analog) in order to provide ANI and selective routing to the nearest serving PSAP, without having to incur high rates for special CAMA trunks, plus mileage from the private switch to the 9-1-1 tandem switch.

- 9-1-1 maintenance, and access to the database, should be determined at state level and should not necessarily be the responsibility of the LEC. Many alternative telephone and wireless service providers do not want to provide their competitor - the LEC- with private customer information, even in a secure database. A third-party database, or database service bureau, with no interest in providing telecommunications services, and monitored by state or county 9-1-1 boards, may be the key to information services for PSAPs.

- Standards, procedures and assurances to the private switch provider that the data that is supplied to the 9-1-1 database maintainer is updated in a timely and accurate manner, and that the ANI trunks are maintained properly. Currently, with the private switch 9-1-1 service of one LEC, the only recourse Cable Plus has to correct LEC-caused network or database problems is to disconnect the service, according to the terms and conditions of the LEC contract. Disconnecting is completely unacceptable, since it removes the ability of providing ANI and ALI to the PSAP. If LECs do offer the service, they must be held accountable for its reliability.

- Funding should be determined at the state and local level, but all telecommunication service providers should pay a proportionally equal share, based upon the number of access lines (or wireless subscriptions) for the upkeep and maintenance of networking and database services.

LECs role

The FCC proposes in its NPRM that PBXs and private switches adapt to LEC-created signaling and protocol specifications and provide non-fictitious DID

[1] Page 14 of Appendix D of the Federal Communications Commission's Notice of Proposed Rulemaking, adopted September 19, 1994 and released October 19, 1994.

numbers to provide LEC-recognizable ANI. In addition, the NPRM states that telephone companies develop and market E9-1-1 interconnection.

LEC-designed numbering and networking solutions may not best serve the private switch manufacturer and service provider. In addition, the LEC may choose to implement only outdated technology for interconnection, forcing the private switch provider to adapt to each LEC. The private switch provider may have to adapt to different standards in each state or region, at the discretion of the LEC.

For instance, many LECs provide analog CAMA trunks for the carriage of ANI from a private switch, using multi-frequency (MF) signaling, an antiquated technology. Most modern PBXs do not support MF signaling, necessitating an expensive interface to the old architecture. Many PBX providers have sophisticated switches that could benefit from a digital ISDN link to the 9-1-1 tandem switch or LEC end office, which may be less expensive and a better choice for all parties. The choice and option should be available, and technology should not be stifled simply because one solution exists.

Also, with the advent of local loop competition, as consumers switch service from a traditional LEC to another dial tone provider, the LEC-maintained database will shrink. It doesn't make sense for the LEC to continue to be at the center of the 9-1-1 system, but it does make sense to open the system for all parties to contribute to the betterment and maintenance of 9-1-1.

Conclusion

Without national standards that suit all parties, private switch owners may find providing E9-1-1 service too difficult to manage, too costly to provide and perhaps affect the ability to stay in business.

It is time to turn 9-1-1 on its ear and look at ways the PSAP can be served with accurate information from all parties involved in providing telephone service, whether it be at the local loop level, connected via a private switch, carried over cellular systems, or with lines managed by a building owner.

Strict regulations for reporting location of each wired telephone line should be set that are compatible in every state and county with enhanced 9-1-1 systems. In addition, switch manufacturers, either for LEC service or privately owned, should settle on compatibility standards that are cost effective and suit small private switch owners, manufacturers, LECs, PSAPs and callers alike.